### BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on policies and practices for advanced metering, demand response, and dynamic pricing.

Rulemaking 02-06-001 (Filed June 6, 2002)

ADMINISTRATIVE LAW JUDGE'S RULING APPROVING
2004 SCHEDULE AND PLAN FOR THE STATEWIDE PRICING PILOT
EVALUATION AND CUSTOMER RESEARCH ACTIVITIES
AND ESTABLISHING PROCESS FOR EVALUATION OF PROPOSED
2005 PRICE RESPONSIVE DEMAND PROGRAMS

# 1. 2004 Schedule and Plan for the Statewide Pricing Pilot Evaluation and Customer Research Activities

Decision (D.) 04-01-012 authorized the Joint Utilities' 2004 budget request for the Statewide Pricing Pilot (SPP). Ordering Paragraph 2b requires the Joint Utilities to submit a schedule and plan for implementing additional SPP research activities in 2004 with the Energy Division. The same Ordering Paragraph specifies that Energy Division will consult with the Assigned Commissioner and Administrative Law Judge prior to specifying which projects are approved and which are deferred pending the results of initial evaluation efforts.

Attached to this ruling is the Energy Division memo, recommending approval of the proposed 2004 Research Plan. After consulting with the Assigned Commissioner, I concur with the Energy Division recommendation that the proposed 2004 Research Plan should be approved, as described in the

172507 - 1 -

attached memo. The detailed research plan, served on parties on April 21, 2004, has been placed in the correspondence file for Rulemaking 02-06-001.

### 2. PROGRAM MODIFICATIONS FOR 2004 PROGRAMS

In Commissioner Peevey's February 25 Assigned Commissioner's Ruling he directed the utilities to file their proposed modifications to 2004 programs no later than April 1, 2004. Comments on the proposed program changes were filed April 21, 2004 and reply comments were filed on April 30, 2004. Each utility identified several different possible program changes, described by the utilities as minor "tweaks" to the programs. In reviewing whether these program modifications fall with the definition of minor modifications, consistent with D.03-06-032, I was guided by the following principles:

- Does the proposed change expand customer eligibility? (positive)
- Would the proposed change modify an important aspect of the program design? (negative)

With these principles in mind, I briefly describe the proposed changes and whether or not the proposed modification is approved.

# 2.1 SDG&E Proposal 1: Allow Participants in the Rolling Blackout Reduction Program to Participate in Demand Reserves Partnership or Critical Peak Pricing Program

San Diego Gas & Electric Company (SDG&E) proposes to allow participants in the existing Rolling Blackout Reduction Program (RBRP) to participate concurrently in the Demand Reserves Partnership (DRP) or go on the Critical Peak Pricing (CPP) tariff, with appropriate safeguards to prevent double payment of incentive and double counting of demand reductions. The RBRP is a reliability program (as opposed to a price responsive demand program) that dispatches, in the order designated by its Environmental Dispatch priority, customer back-up generation units to serve at least 15% of that customer's load

and not less than 100 kW when load reductions are required by the California Independent System Operator. SDG&E's proposal would allow customers on the RBRP to provide load reductions through the CPP or DRP programs at times when the RBRP is not triggered. Participants in RBRP are only paid for the energy they reduce when called, in contrast, for example, with PG&E's E-BIP, which provides participants up front discounts off their rates. This proposed program modification generated significant opposition, primarily due to concerns about the mixing of emergency and price responsive demand programs and concerns that the proposal would allow customers to utilize their back-up generation units to reduce their demand in response to a DRP or CPP event.

I recommend adoption of SDG&E's proposal provided that SDG&E's tariff language makes clear that customers on the RBRP may not provide load reductions using their back-up generation units through the CPP or DRP programs at times when the RBRP is not triggered. In other words, customers who participate in both the RBRP program and price responsive demand reduction programs (DRP or CPP), should be restricted to providing true demand reduction rather than substituting onsite generation to accomplish the demand reduction offered under the DRP or CPP. A mechanism to track the use of back-up generation must be in place for such a customer to participate in either the CPP or DRP. Allowing RBRP customers to reduce their demand via the DRP or CPP, should help to reduce the likelihood that the RBRP program is called. By allowing this parallel participation, the likelihood of calling the RBRP should be reduced. SDG&E will also need to ensure that there are enough safeguards to prevent double counting and double-payment, if the RBRP is called.

- 2.2 SDG&E Proposal 2: Expand Eligibility for Demand Bidding Program to Direct Access Customers
- 2.3 PG&E Proposal 1: Expand Load Eligible for Demand Bidding Program
- 2.4 PG&E Proposal 2: Expand Load Eligible for Critical Peak Pricing Program

The second SDG&E proposal would expand load eligible for the Demand Bidding Program (DBP) by allowing participation by Direct Access customers. The first PG&E proposal would also expand load eligible for the DBP by allowing participation by Direct Access customers. This proposal would also allow customers on all agricultural schedules except AG-V and AG-R tariffs (which already provide incentives for load reduction) to participate in the DBP and change the definition of a "greater than 200kW customer" from average monthly demand to the maximum demand in a single month to also expand the number of eligible customers. The second Pacific Gas and Electric Company (PG&E) proposal would expand load eligible for the Critical Peak Pricing (CPP) program by including customers on all agricultural rate schedules except AG-V and AG-R, which already provide incentives for load reduction, and by changing the definition of a "greater than 200kW customer" from average monthly demand to the maximum demand in a single month. Most commenters support the proposed expansions of eligibility but raised issues about cost allocation or customer support concerns.

I agree with CMTA's suggestion that direct access customers have potential as a source of demand response and agree that they should be able to participate in the DBP. Under the DBP, the cost to bundled service customers is not affected by whether the load is bid in by a bundled service or DA customer. This proposal should be approved for all three IOUs. I approve PG&E's proposals to expand participation in the Demand Bidding Program and Critical

Peak Pricing Program as proposed, subject to the development of an accounting/tracking plan that will prevent double counting of load response and double-dipping for payments/benefits where applicable.

To address the concerns raised by California Farm Bureau about lack of account representative knowledge concerning the needs of agricultural customers, I suggest that the CFB work with the IOUs to develop training resources for agricultural account representatives and educational/marketing materials for agricultural tariff customers. The change to the >200 kW definition will make PG&E's definition consistent with SCE's and SDG&E's definition and will reduce some of the confusion facing customers with operations in multiple service territories.

The customers included in these eligibility expansion proposals may not have received AB29X meters in the PG&E service territory as they did in both SCE and SDG&E service territories. Approving this definitional change has two implications: 1) it creates consistency in eligibility criteria across all three IOU service territories but 2) it will require the installation of new advanced interval meters. The first is desirable in that it avoids confusion for customers with accounts in multiple service territories as well as on general principle. The second requires considering who must bear the cost of the additional meter equipment and communications systems. Because of the potential cost issues, only newly eligible customer accounts adopting one of the price-responsive demand offerings should be provided the equipment, communications, and ongoing services currently provided to recipients of AB29X meters. These costs should be booked to the AMDRA account up to the levels approved in D.03-06-032.

# 2.5 PG&E Proposal 3: Open the Base Interruptible Program (E-BIP) to Direct Access Participation and Provide Day-Ahead Bidding

Implementation of this proposal should be deferred for further discussion and consideration as a 2005 program. The first half of the proposal, allowing direct access customers to be on E-BIP, an emergency-triggered program, does nothing toward the attainment of demand response goals unless the second half of the proposal (day-ahead bidding) is also adopted. Adding a day-ahead bidding component to the E-BIP program introduces a new concept that needs further thought and is therefore not a minor modification appropriate to implement at this time. I agree with CMTA that modification of an interruptible program to include a bidding component begins to blur the lines between reliability and price response.

Rather than modify the E-BIP to include a bidding component, a simpler alternative is to allow customers to participate in both E-BIP and the Demand Bidding Program as suggested by CLECA. However this arrangement would appear to reward E-BIP customers for reductions in load that they already have incentive to make. Specifically, E-BIP customers receive discounts off of their rates in exchange for reducing load when called (usually Stage 2). If a Stage 1 alert is called, E-BIP customers already have incentive to voluntarily reduce load so that a Stage 2 situation is not reached. Otherwise they would need to reduce their loads significantly if a Stage 2 event is reached. If E-BIP customers could participate in the Demand Bidding Program, they would essentially be paid for load reductions (prior to Stage 2 alerts) that they already have strong incentive to make under the present structure of the E-BIP program. There may be ways to rectify this situation, but more time is needed to fully understand all the ramifications of jointly participating in both an interruptible program and Demand Bidding Program. PG&E's proposal differs from SDG&E's RBRP

program change for two reasons: (1) SDG&E is not recommending the addition of a bidding component to an emergency program, but rather joint participation in separate programs, and (2) the joint participation in SDG&E's situation makes sense because of the way the RBRP is structured. For these reasons, I do not adopt the modification to E-BIP that PG&E proposes at this time.

# 2.6 PG&E Proposal 4: Integrate 2004 Marketing with Energy Efficiency and Self-Generation Options and Focus Marketing Efforts Based on Report Results

# 2.7 SCE Proposal 2: Modify Marketing Materials if Successful Approach Found

PG&E proposes to modify its approach to marketing demand response programs by integrating their marketing with other programs that could be utilized together, for example, energy efficiency and self-generation options. PG&E likens this approach to a financial planner who works with "clients to understand their individual financial goals, resources, needs and limitations." By marketing these various options together, PG&E believes it will be able to offer "the best possible mix of options to a given customer, based on their specific energy management needs with respect to price, reliability and business operations." (PG&E comments, p. 9.) PG&E also plans to develop more focused marketing materials as a result of survey results. CMTA believes that more aggressive marketing of and education about current programs may induce a "second look" by customers. SCE simply indicates it is willing to modify its marketing materials if others find more effective ways of marketing price responsive demand programs.

The additional marketing efforts described by PG&E should be approved. In addition all three utilities should revise their marketing materials and adopt more "aggressive marketing and education" efforts as recommended

by CMTA. The feedback from the first monitoring and evaluation report, as well as the utilities own experience over the past few months should help improve the marketing efforts substantially. All three utilities should work together to develop materials and strategies based on their most successful efforts and to maintain a level of consistency in those materials and strategies that will minimize confusion for customers operating in multiple service territories.

# 2.8 SDG&E Proposal 3: Include a Price Trigger for AL-TOU-CP

This proposal by SDG&E has insufficient detail to evaluate the program, as reflected by the concerns raised in the comments. The Commission can consider this idea as a summer 2005 proposal.

## 2.9 SCE Proposal 1: Modify the CPP to Add 2-Day Notice, Modify Peak/Price Ratio, and Allow for Opt-out if Terms Altered

Southern California Edison Company (SCE's) proposal to change the notice requirements from one day to two days is a significant modification, but it is worth exploring as a yearlong pilot for SCE only. I do not agree with TURN that customers could 'game' the program with a two-day notice, but there is a legitimate concern that the 'two-day notice/option to cancel' concept could result in very little benefits gained if there are many cancelled CPP events because customers would receive rate benefits but will not be required to perform as often as before. On the other hand, SCE makes a relevant point that the two-day notice may give participants more options for reducing demand. As of March 31, SCE had no customers on CPP so there is no one who could be disadvantaged or confused by this program modification. When marketing this program, SCE should notify its customers that this aspect of its tariff is a one-year trial, and SCE shall fully cooperate in the evaluation of this program element by providing all relevant data and access to its CPP participants during the 2004 evaluation.

Given the concerns about the two-day notice, this proposal should be limited to just SCE. Since the two-day notice is beneficial to customers, I do not see a need to offer CPP customers an option to leave the rate because of the change.

SCE's proposal for higher peak/off-peak ratios is a significant program change that is not appropriate to modify at this time. The concept of modifying the CPP ratios is important and should be discussed as a potential 2005 proposal.

# 2.10 CCEA Proposal: Eliminate 3% Performance Requirement for One Summer Trial and 12 Month Commitment for CPP

California Consumer Empowerment Alliance (CCEA) believes that the original idea of bill protection for CPP customers was to allow them to participate for one summer at no risk, learn about their ability to respond, and then decide whether or not to stay on the program. As adopted, a 3% performance requirement and a 12-month commitment was included as part of the bill protection incentive. According to CCEA, this performance requirement "reinstates the risk, eliminating virtually all of the benefit of the bill protection concept." CCEA recommends eliminating the performance requirement and the up front 12-month commitment so customers can "try CPP for a summer with no risk, after which they would have to make a commitment to stay on the program for 12 months." PG&E agrees that the 3% performance requirement for bill protection is "difficult to explain, difficult to market, and difficult to calculate and administer" and supports eliminating it "provided CPP rate design remains subject to a revenue neutrality restriction." (PG&E comments, p. 5.)

I agree with both CCEA and PG&E's concerns that the restrictions accompanying the bill protection requirement reduce customer interest in the program. I also find CCEA's suggestion that providing customers the option of "trying out" the rate at low risk may entice some customers to experiment with load reduction strategies and learn more about their demand responsive

capabilities. Thus the 3% performance requirement should be eliminated from the CPP tariff for customers in all three utility service territories. Because there is no downside risk for customers during the winter season, they should still be required to make a 12-month commitment up front.

## 2.11 Evaluation of Modified 2004 Programs

Whenever feasible, the program evaluation efforts undertaken as a result of Ordering Paragraph 24 and 26 of D.03-06-032 should be adopted to permit completion of accurate evaluations as an input into 2005 program design decisions.

#### 3. Modification of 2004 Goals

Commissioner Peevey's ruling requested input on the utilities' progress on attaining the 2004 price responsive demand reduction goals adopted in D.03-06-032. The adopted goals were 400 MW of price responsive demand reductions for SCE and PG&E, and 80 MW for SDG&E. As filed on April 1, 2004, PG&E had enrolled 288 MW, SCE had enrolled 76 MW, and SDG&E had enrolled 13.7 MW. Assuming the program modifications proposed by each utility were adopted, PG&E expected that it would have 333 MW enrolled for Summer 2004, SCE expected that it would have 141 MW enrolled, and SDG&E expected that it would have 47 MW enrolled. Clearly, the 2004 goals established in D.03-06-032 will not be met. Therefore, I modify the goals and adopt the following targets for price responsive demand reductions for 2004: PG&E – 333 MW; SCE – 141 MW; and SDG&E – 47 MW. The utilities should take appropriate actions to meet any shortfall in their procurement plans that result from failure to meet the original goals.

# 4. Process for Evaluation of Proposed 2005 Price Responsive Demand Programs

On April 1, 2004 the utilities made filings discussing their progress in meeting 2004 demand response goals, modifications to 2004 programs, and an initial listing of new projects for 2005. This ruling does not provide pre-approval of these proposed programs, but rather specifies a process by which approval for new programs (and continuation of existing programs) for 2005 will occur.

The Commission's monitoring and evaluation consultant Quantum Consulting, Inc. (Quantum) is continuing its evaluation work of the existing price responsive demand programs through summer 2004. Based on discussions with staff, it is my understanding that Quantum plans to prepare a process evaluation on the current programs that will be submitted in June or July 2004 with a more complete program evaluation in fall 2004. I believe that the process evaluation may provide valuable input to designing 2005 new programs and the need for more substantial changes to current programs.

The Working Group 2 (WG2) moderator should schedule workshops for summer 2004 whose purpose is to promote discussion and further fleshing out of the various utility proposals described in the April 1 reports. Other parties that wish to propose other new programs may do so in the context of the workshops, consistent with the direction provided by the WG2 moderator in advance of the workshops. Following the workshops, utilities should file detailed program descriptions on October 15, 2004. Comments on the proposed programs shall be filed on November 5, 2004, with reply comments filed November 16, 2004. It is my goal that the Commission issue a decision adopting 2005 programs and budgets in January 2005.

## Therefore, IT IS RULED that:

- 1. The incremental research activities and plan described in Attachment 1 are approved.
- 2. The SPP Evaluation Committee shall conduct a mid-year review as described in Attachment 1 and the Working Group 3 moderator may schedule a working group meeting to review the costs and additional research recommended.
- 3. The utilities shall file advice letters to implement the 2004 programs changes described and approved herein no later than 10 days after the date of this ruling. If consistent with this ruling, Energy Division shall approve the implementing advice letters, effective on the date filed.
- 4. The 2004 goals for price responsive demand established in Ordering Paragraph 1 of D.03-06-032 are modified as follows: PG&E 333 MW; SCE-141MW; and SDG&E 47 MW. The utilities shall take appropriate actions to meet any shortfall in their procurement plans that result from failure to meet the original goals.
- 5. The Working Group 2 moderator shall schedule workshops for summer 2004 to promote discussion and further fleshing out of the various utility proposals described in the April 1 reports.
- 6. Utilities shall file detailed 2005 program descriptions and budgets on October 15, 2004.
- 7. Comments on the proposed programs shall be filed on November 5, 2004, with reply comments filed November 16, 2004.

Dated June 2, 2004, at San Francisco, California.

# /s/ MICHELLE COOKE Michelle Cooke Administrative Law Judge

#### CERTIFICATE OF SERVICE

I certify that I have by mail and by electronic mail to the parties to which an electronic mail address has been provided, this day served a true copy of the original attached Administrative Law Judge's Ruling Approving 2004 Schedule and Plan for the Statewide Pricing Pilot Evaluation and Customer Research Activities and Establishing Process for Evaluation of Proposed 2005 Price Responsive Demand Programs on all parties of record in this proceeding or their attorneys of record.

Dated June 2, 2004, at San Francisco, California.

/s/ ANTONINA V. SWANSEN
Antonina V. Swansen

### NOTICE

Parties should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address to insure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

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The Commission's policy is to schedule hearings (meetings, workshops, etc.) in locations that are accessible to people with disabilities. To verify that a particular location is accessible, call: Calendar Clerk (415) 703-1203.

If specialized accommodations for the disabled are needed, *e.g.*, sign language interpreters, those making the arrangements must call the Public Advisor at (415) 703-2074, TTY 1-866-836-7825 or (415) 703-5282 at least three working days in advance of the event.

### **ATTACHMENT 1**

State of California

### Memorandum

**Date:** May 3, 2004

To: Michelle Cooke, Administrative Law Judge

Julie Fitch, Assigned Commissioner

Advisor

From: Moises Chavez

**Energy Division** 

Subject: Joint Utilities' proposed 2004 Schedule and Plan for the Statewide Pricing

Pilot (SPP) Evaluation and Customer Research Activities

In compliance with Decision (D.) 04-01-012, on April 21, 2004, Pacific Gas and Electric, San Diego Gas and Electric, and Southern California Edison (Joint Utilities) filed their 2004 Schedule and Plan for the SPP Evaluation and Customer Research Activities (2004 SPP Research Plan). D.04-01-012 also requires the Energy Division (ED) to consult with the assigned Commissioner and Administrative Law Judge (ALJ) on the projects that should be approved or deferred, based on the results of the initial SPP evaluation. This memo presents Energy Division's review of the Joint Utilities' 2004 SPP Research Plan and recommendation.

#### Overview of the 2004 SPP Research Plan

The Joint Utilities' 2004 Research Plan includes: 1) the 2004 incremental research activities needed to enhance the accuracy of the 2003 SPP summer load impact analysis, and 2) the SPP evaluation activities for the winter 2003/04 and summer 2004 data. The Joint Utilities' 2004 Research Plan filing includes an update on the SPP research and evaluation expenditures (Joint Utility filing, Attachment A, Table 1); Based on this expenditure information the Joint Utilities estimate that \$1.8 million are the available funds for 2004 SPP customer research and evaluation activities. Of this amount \$1.19 million is allocated to the evaluation activities that were included in the Joint Utilities' August 1, 2003 SPP evaluation plan, which includes the load impact analysis for Track B and evaluation of the SPP winter 2003/04 and summer 2004 load data. A detailed listing, description, and associated costs for these activities are provided in Attachment A of this memo. The available funds for the 2004 incremental research activities are therefore \$629,000.

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<sup>&</sup>lt;sup>1</sup> D.04-01-012 authorized the Joint Utilities' 2004 budget request for the Statewide Pricing Pilot. Ordering Paragraph 2b requires the Joint Utilities to submit a schedule and plan for implementing the additional SPP research activities in 2004.

### R.02-06-001 MLC/avs

### Energy Division's Recommendation

Energy Division recommends approval of the Joint Utilities' proposed 2004 SPP Research Plan. The proposed 2004 SPP Research Plan was developed by the SPP Evaluation Committee, which involved the participation and input of members of Working Group (WG) 3 and Agency Staff (CEC and ED staff.) The recommended list of incremental research activities was developed with the underlying intent of achieving the SPP's three primary research objectives within the available budget. These research activities, including a description of the tasks, schedule, costs, and deliverables are listed in attachment A to this memo. These are the incremental research activities that the SPP Evaluation Committee agreed on for purposes of enhancing the SPP results. Energy Division recommends authorizing these incremental research activities and plan.

The Joint Utilities also propose in their filing a mid-year review of the SPP's operating costs to determine if funds are available for additional research and evaluation activities. Energy Division supports the adoption of this proposal and recommends directing the SPP Evaluation Committee to conduct this mid year review, and based on this review file a compliance filing with the Energy Division with any recommended additional research activities.

Section 1 : 2004 Activities Described In The August 2003 Statewide Evaluation Plan						
Task	Activity	Estimated Cost		Status as of 4/8/04	Available \$\$	
1	Track B Analysis	\$80,000	first report by July 1, 2004: Sept 03-Feb 04 load impact results and the 2004 survey analysis; Final report by Dec. 04	In progress		Track- B load impact analysis; and customer survey analysis
2	Winter Analysis	\$105,000	Memo by July 1, 2004	In Development		winter and summer 03 events demand response comparison to rate treatments
3	2004 Summer Evaluation Report	\$300,000	Report by Dec. 1, 2004	Not started		2003 and 2004 weighted impact and demand results; and Track A CPP-V demand response results
4	CRA Misc Support	\$150,000	Ongoing	In progress		On-going consultation
5	C&I Customer Preference Market Research	\$300,000	Report and maket share tool by June 30, 2004	In progress		Analysis of both opt-in and opt- out estimates of market share preferences for rate options.
6	End of Pilot Survey	\$125,000	Survey to be conducted in Oct. 04; Report by Dec. 04	Not started		End of Pilot survey on customers' experience/perceptions to the rates and information
7	Evaluate Customer Perceptions of Pilot Features	\$125,000	TBD	Not started		Scope of task has not been determined
Subtotal		\$1,185,000				
	Estimate from 8/03 Evaluation Plan	\$1,250,000				
	Remaining from 8/03 Evaluation Plan	\$65,000				
	Incremental Research Request in 2004 Budget	\$425,000				
	Carry Over from 2003 (see Table 1)	\$139,000				
	2004 Available Funding	\$629,000				

# R.02-06-001 MLC/avs

Section 2: 2004 Incremental Research Activities								
Task	Activity	Estimated Cost	Estimated Completion Date and Deliverables	Status as of 4/8/04	Available \$\$			
					\$629,000 less current line task			
1	Final 2003 Initial Impact Evaluation Report	\$34,000	Updated Report (Section 5) by March 9, 2004	Completed	\$595,000	Refinement of the 2003 impact results using weighted estimates		
2	Replenishment Surveys	\$75,000	Survey Database by July 1, 2004	In development	\$520,000	Surveying the SPP replenishment/replacement sample and new control self-seletion bias sample		
3	Self -selection Bias	\$100,000	Report by December 1, 2004	In progress	\$420,000	load data comparison of customers that refused to participate in the SPP against the control and treatment customers' data		
4	Information Only 2003/2004 Results	\$22,000	Section for the Summer 2004 report by December 1, 2004		\$398,000	Communicate to customers on the infomartion only treatment that they are not on a rate treatment and re-analyze summer 03 data using the end of summer survey data		
5	C&I 2003 Results	\$68,000	Technical memo by July 1, 2004		\$330,000	Demand model and impact analysis for small C&I customers		
6	Residential TOU vs CPP-F Pooled Regressions	\$22,000	Technical memo by July 1, 2004		\$308,000	Load impact analysis/investigation of the TOU and CPP-F rate treatments		
7	Persistence of Response to An Event	\$6,500	Section for the Summer 2004 report by December 1, 2004		\$301,500	Analysis on how customers' demand response differs if consecutive CPP events are called		
Section 2: 2004 Incremental Research Activities								

# R.02-06-001 MLC/avs

Task	Activity	Estimated Cost	Estimated Completion Date and Deliverables	Status as of 4/8/04	Available \$\$	Task Description	
8	Heteroscedasticity/Autocorrelation Corrections	\$53,000	Technical Memo by May 7, 2004	In Progress	\$248,500	Develop alternative methods to correct for potential errors in the price elasticity and impact estimates	
9	New Elasticity Estimates with Autocorrelation Correction	\$50,000	Updated Section 5 of the 2003 load impact report by June 11, 2004		\$198,500	Application of the recommended methods developed in task 8 to all rate treatments and an update 2003 load impacts	
10	Weekday/Weekend - Overall Conservation Effects	\$14,500	Update Sections 4 and 5 of the 2003 load impact report by July 2004		\$184,000	Analyze load impact data for weekends and holidays, results will be compared to off-peak usage during the weekdays, which will provide more accurate measure of load impacts on monthly usage	
11	Residential Sub-segments Estimates	\$100,000	Update Sections 4 and 5 of the 2003 load impact report by July 2004		\$84,000	Analyze how price elasticties and impacts vary by customer segments: dwelling type, appliance ownership and other sociodemographic and economic factors	
12	Hourly Impacts	\$10,000	TBD		\$74,000	Assess the load impact of the rate treatments on an hourly basis	
13	Compare Sample Weighted Usage and Population by Climate	\$2,000	Technical Memo by May 30, 2004		\$72,000	Comparison of SPP sample weighted usage with the population frame usage data combined for the three utilities	
14	Compare Treatment and Control Samples with RASS Statewide Response	\$2,000	Technical Memo by July 1, 2004		\$70,000	Compare treatment and control samples with the statewide Residential Appliance Sarturation Survey (RASS) responses	
Section 2: 2004 Incremental Research Activities							

# $R.02\text{-}06\text{-}001\ MLC/avs$

Task	Activity	Estimated Cost	Estimated Completion Date and Deliverables	Status as of 4/8/04	Available \$\$	Task Description
15	Further Analysis of CPP-V Rates Against ST Control Group Instead of Over 600 kWh Control Group	\$20,000	Technical Memo (TBD)		\$50,000	Measure the incremental impact of the CPP-V rate treatment above the smart thermostat impact
16	Match End of Summer Self Reports of Actions Taken to Respond Relative to Actual Consumption Records to Verify Actions in Observed Load Drops	\$5,000	Technical Memo (TBD)		\$45,000	Develop an approach to estimate customer-specific changes in load shapes and compare the results with end of summer survey responses
17	Shadow Bill Database	\$5,000	September 1, 2004		\$40,000	Create a database of monthly rate treatments and otherwise applicable tariff bills for the shadow bill summaries that will be issued in May 2004. This information will allow an evaluation of customers' benefits and lossess on the experimental rate treatements

Note : does not include SF Coop funding for contributions to evaluation and customer research of Track B